

GEOGRAPHIC

SCHOOL BULLETINS



THE NATIONAL GEOGRAPHIC SOCIETY, WASHINGTON 6, D.C.

VOLUME XXXVI, NUMBER 20, MARCH 3, 1958 . . . To Know This World, Its Life



ROBERT E. KUNTZ

YEMEN MOUNTAINEERS, with J-shaped daggers, forego isolation at prospect of merger

- ▶ Arab Nations Unite
- ▶ Tiny Yemen Emerges
- ▶ Sphinx's Face Lifting
- ▶ More Satellites to Come
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suffers from thirst. Though it equals the combined areas of Texas and New Mexico, it holds too large a population for its narrow arable river banks. Syria, approximately the size of North Dakota, has a more scattered population than Egypt. Though Egypt cuts a wider swath in world economy, the average Syrian is better off than Nasser's impoverished fellahin.

Chains of union now bind cities gray with dust of ages—Cairo, biggest city in Africa, Aleppo, tramped by caravans thousands of years ago, Damascus, possibly earth's oldest city. Some of the world's best-known antiquities (see page 234) lie in the two lands. A clamor of varied dialects and tongues cries allegiance to Egypt's Gamal Abdel Nasser, President of the new state.

Travelers and official communications between the two sections must cross boundaries. Israel's army of well-armed, battle-hardened soldiers bristles in the middle of the union. These are the troops that slashed through Egypt's forces on the Sinai Peninsula some 18 months ago.

Advocates of the United Arab Republic call it a step toward the old goal of a united Arabdom, stripped of artificial boundaries. Others see the hand of Nasser fingering a chess game. Oil could be the stake. It passes by pipeline through Syria, by tanker through Egypt's Suez Canal. Communist politics plays a part. Both countries receive aid from Russia.

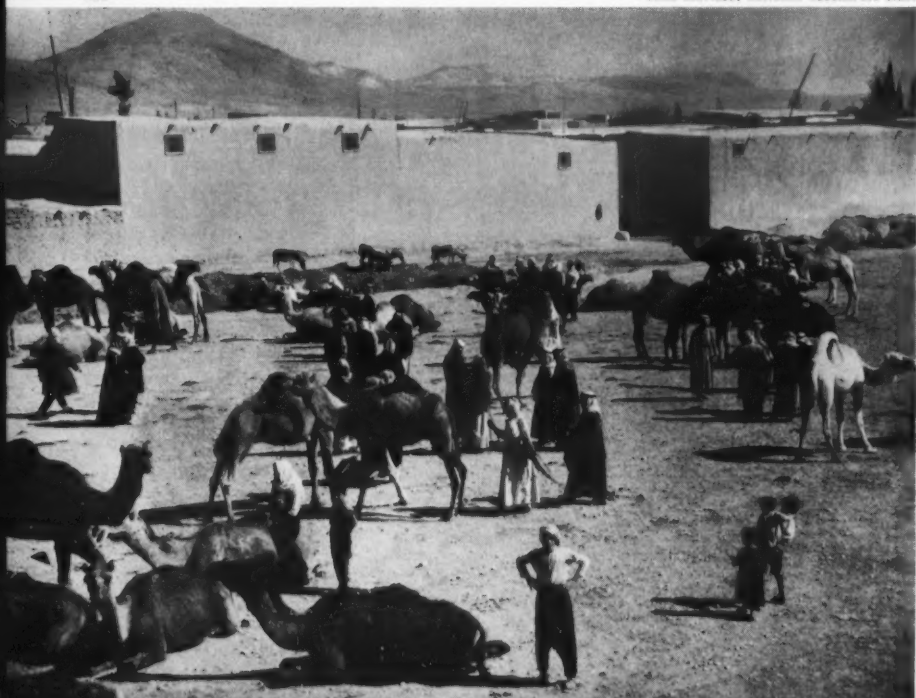
At time of writing, tiny Yemen seems bound to join the Egypt-Syria union (see page 232). But Jordan's King Hussein and Iraq's King Faisal have counterbalanced Nasser's union with their own merger. Saudi Arabia's oil-rich King Saud (GSB, Nov. 11, 1957) flirts with both federations. Left out—and worried—is little Lebanon, the only predominantly Christian country in the Arab world. Shouldered against the Mediterranean by Syria, Lebanon dreads an incitement of its big Arab element.

Nasser's call for Arab unity has resulted in two opposing mergers instead of a single, strong Arab nation. But the trend toward unification has started.—

CAMELS still do leg work in Syria's deserts. These are for sale near Damascus.

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JOHN SCOFIELD, NATIONAL GEOGRAPHIC STAFF



Wedding in the Near East

Arab Nations Join in New Mergers

MARRIAGE announcement: The Arab world gives notice of a double wedding. Egypt and Syria have joined to form the United Arab Republic. Iraq and Jordan have followed suit. These last two are geographic neighbors, their borders meeting. But Egypt and Syria are separated physically. Suddenly 23,000,000 Egyptians and 4,000,000 Syrians find themselves one people instead of distant acquaintances.

Historians grope to find a parallel for the willing union of two independent, separated states. Nearly 800 years ago, Saladin, hero-warrior of the Moslem



HAMILTON WRIGHT



JOHN SCOFIELD, NGS STAFF

Egyptian textile worker, left, and Syrian Bedouin are now countrymen. Egypt's cotton, being loaded at Alexandria, below, will help support the new union.



NATIONAL GEOGRAPHIC PHOTOGRAPHER J. EAYLOR ROBERTS

world, became sultan of Egypt and Syria and united all Arabs before the threat of Europe's Crusaders. His remains are enshrined at Damascus, until now Syria's capital (GSB, Oct. 14, 1957). But the present union of Egypt and Syria reverses the policy of "self-determination of nations," inspired by Woodrow Wilson after

World War I. Self-determination led individual groups within large countries to split away and form nations. This time, individual groups, instead of dividing, are merging.

Agriculture supports both countries, but methods generally are primitive. Except for the Nile Valley, Egypt's land

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YEMEN dancers (right) spark streetside gaiety with intricate crossings of feet like the gyrations of American teen-agers. Crowds gather at open markets, eyeing items from camels to dried locusts, a Yemeni delicacy. Bandleered soldiers stroll by frequently. Their weapons may improve if Yemen stands firmly beside Egypt and Syria, both recipients of Soviet aid.

Much remains old-fashioned in Arabia Felix, "Fortunate Arabia." Only a few trucks share the bad roads with goats, camels, and donkeys. Drinking water must be boiled. Night travelers often pull up sharp, startled by baboons that menace them with rocks for intruding. Yemenis cram their mouths with leaves of the kat tree. Chewing them serves as a stimulant.

K. S. TWITCHELL



HARRY HOOGSTRAAL

DEEP in Yemen's valleys (left), superb Mocha coffee flourishes on stone-faced terraces. Coffee's palatable qualities were discovered in Arabia more than 1,000 years ago. Yemen once shipped most of the world's supply through the port of Mocha.

The kingdom boasts impressive quantities of water for agriculture, though water shortages blight much of neighboring north and east Africa and the rest of the Arabian Peninsula. Streams and large rivers slash Yemen's valleys. Bubbling springs are numerous. Wells are easily sunk. Yemenis irrigate by terracing valleys and hillsides. Scientific water conservation would enable Yemen to boost its population.—S.H.

For color-illustrated stories on Yemen send for *National Geographic Magazines* of November, 1947, and February, 1952 (\$1. each).

Tiny Yemen Takes a Bow

YEMEN for centuries enjoyed isolation by choice and geography. It lies in the clutch of spectacular mountains hemmed in by the Red Sea and Saudi Arabia's blistered sands. But the name has become familiar since Egypt and Syria formed union. Toward this Arab wedding, Yemen's absolute monarch marches his estimated 4,500,000 people.

Skyscrapers, say the Yemenis, originated in Yemen. Four- and five-story buildings (right) stand in the traditional capital, San'a, suggesting Western apartment houses. Camel caravans still plod trails once followed by the Queen of Sheba, visiting King Solomon.

But up to now Yemenis have chosen to keep their past—and present—to themselves. Few nations besides Tibet have sought more privacy. Yemen put its first foot forward into the world in 1947 to become a United Nations member.

Merging Arab lands show on this map. Syria and Lebanon, unlabeled, lie north of Jordan, Israel, respectively.

NGS MAP



ROBERT E. KUNTZ

SHIPS endlessly plow the Red Sea past Yemen's long exclusive door (map, left). Helmsmen often steer for Hodeida, the kingdom's chief port, passing strange coastal towns—Luhaiya, Fazih, Maushij, or Mocha, port of fine coffee. Yemen meets the Aden Protectorate at Bab el Mandeb, the 20-mile-wide strait separating the Arabian Peninsula from Africa.

Yemen's 75,000 square miles are mostly mountains, humping above 12,000 feet and slanting down to barren terraces and coast. Life centers about coffee, hides, dates, and wool, to exchange abroad for oil, textiles, and cotton.

More Satellites to Come

AT FLORIDA'S Cape Canaveral a huge rocket flames and thunders aloft. Press and radio scream the news—a new satellite has been launched. In the excitement people often forget that these gleaming, antenna-waving devices clinging to their orbits serve serious scientific purposes. Each is a specialist, gath-

ering data on one relatively small area of the great field of space phenomena.

To fulfill its specialized duties, each type of satellite that goes into orbit will have its distinctive appearance.

Larger and larger "moons" will be launched until a manned space platform spins silently far above earth.

THOMAS J. ABERCROMBIE, NGS STAFF

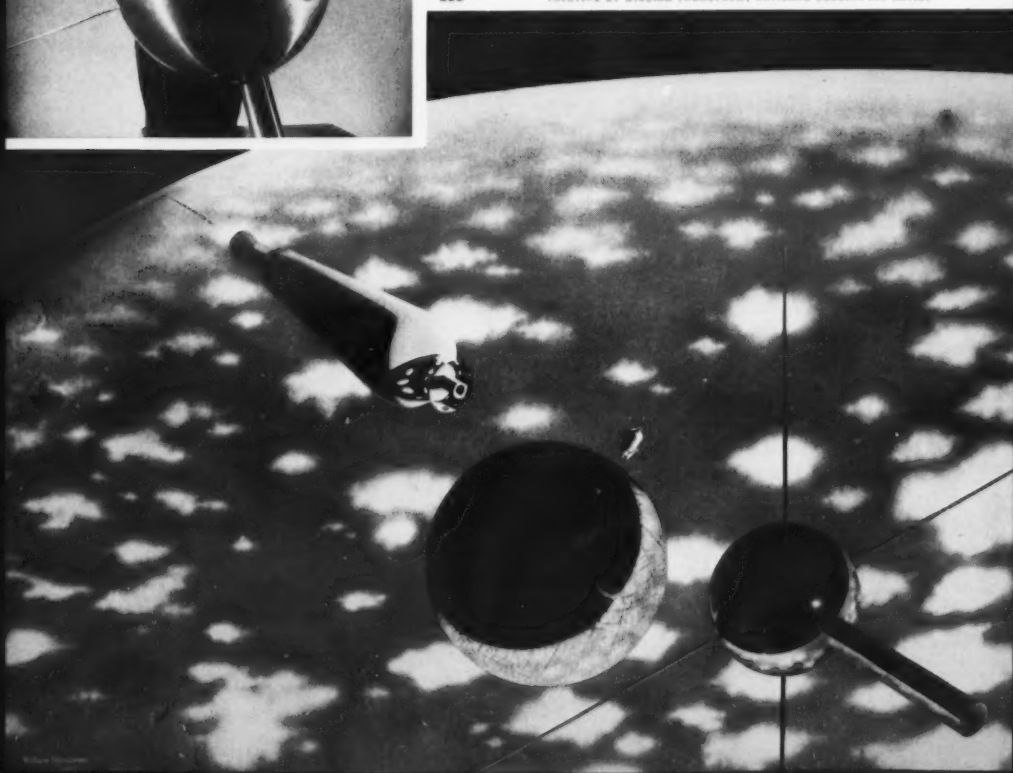


First Vanguard satellite will measure ultraviolet rays and meteor dust, will be gold-plated to reflect radiant heat. Later Vanguard models, left, will generally remain spherical, but with slight modifications.

Painting below shows an orb fitted with a magnetometer in projecting tube. The device measures earth's magnetic field. Behind it floats balloonlike subsatellite, inflated by gas cartridge floating beside it. This plastic shell, about as thick as a candy wrapper, measures air density at the outer edges of atmosphere. Spent third-stage rocket drifts behind moons.

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NATIONAL GEOGRAPHIC PHOTOGRAPHER B. ANTHONY STEWART

FACIAL FOR THE SPHINX

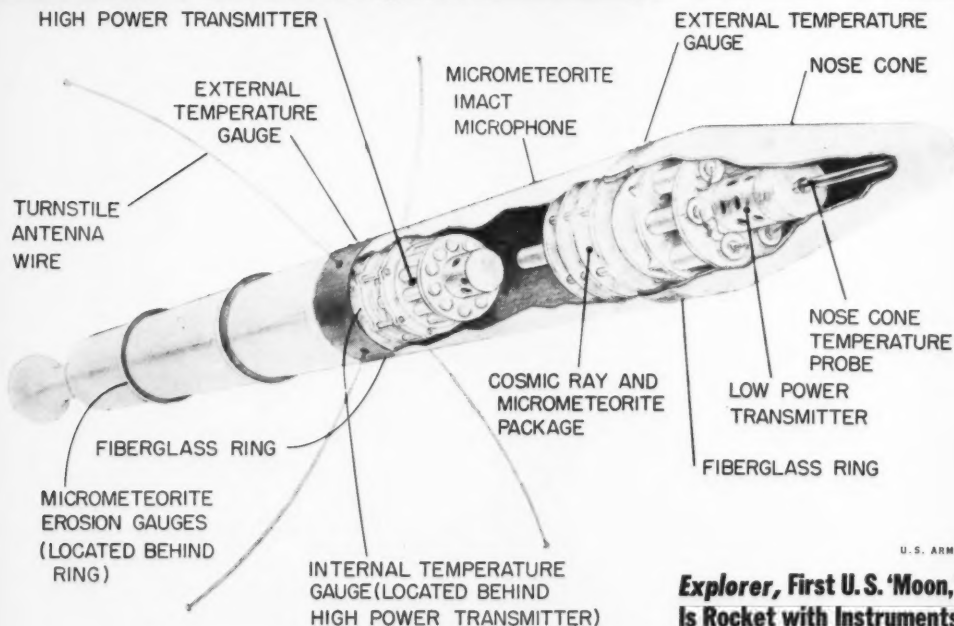
"I SHALL make thee Pharaoh if thou wilt dig me out of the sand," said the Sphinx to Thutmose as he rested in the shade of her sand-swept shoulders one hot Egyptian day, centuries ago. So reads the legend engraved on a slab between the paws of this puzzling colossus. Thutmose did excavate and ruled as Egypt's Pharaoh for nearly 50 years! He probably also repaired much of the damaged Sphinx with blocks of limestone.

Excavations and repairs have been going on around this magnificent statue for thousands of years. In 2900 B.C. Khufu gave orders for its repair. Napoleon sent an expedition to dig out the statue until it rose higher and higher above the sand. But not until 1926 was the base completely uncovered. Today, the Egyptian Department of Antiquities is hard at work giving the Sphinx a new facial. A scaffolding has gone up under its chin

to assist in the general overhaul. The nose, reportedly shot off by French troops in 1798, will be repaired. But even with plastic surgery here and there, the incredible spectacle of Giza will still confront the world with the riddle of its meaning for centuries to come.

Smiling an 8-foot smile, it towers 65 feet above the desert and stretches 240 feet across the sand—guarding a temple and a maze of corridors that wind through the lionlike body.

The Sphinx has guarded the entrance to the Nile Valley for more than 4,500 years. Travelers today see the crouching monster rising like a phantom of sand from the desert, a drab yellow-brown in color. But in its prime the statue was coated with flaming red ochre. Its head-dress was white, its eyes a natural color as it brooded on the men who built it, then left it to the sands.—K.C.



The cylindrical satellite below is a design possibility for a camera-carrying device to televise the formation of storms such as the corkscrewing typhoon pictured off the China coast. Solar batteries would feed it power. Tiny jets would keep it stable.

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UMI

Dream to Come— An Eye in Space

WHIRLING high above the curving earth, a cloud-mapping satellite, left, reads cloud formations with a photoelectric telescope. The orb carries a tiny tape recorder that takes electronic notes of findings. When the recorder receives a signal from certain earth radio stations, it plays back its notes.

Another moon, fitted with four spheres on the tips of its antennas, measures radiation. Different coatings on the sensors (spheres) allow scientists to figure what radiation the satellite receives from the sun, what is reflected from earth, and what comes from earth and atmosphere.



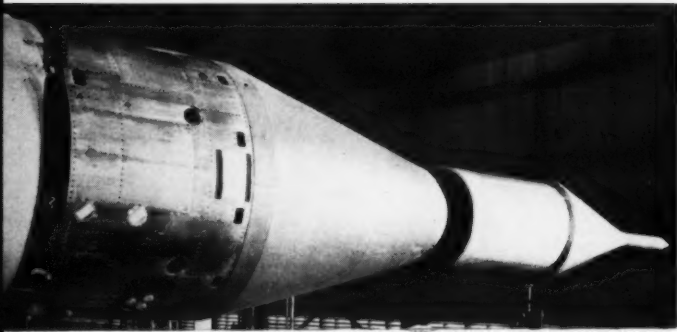
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THE U. S. Army's successful *Explorer* satellite, looking like a needle fixed to the giant nose of the Jupiter-C rocket, below, is a slender tube 80 inches long, weighing less than 31 pounds. Its purpose: to study cosmic rays, temperature, and meteor dust, or micrometeorites.

Explorer contains its own rocket engine—the fourth stage of the flight into orbit. When this last rocket burned out, the entire tube, with its instruments in the front,

became an orbiting satellite. The tube was given a spin before reaching orbit. This served to stabilize it and also to spread out the whiplike antennas, each weighted with a ball at its end. The satellite contains two transmitters (see cutaway, below), one of which has now gone dead. Experts predict that *Explorer* will remain in orbit about four years.

The Army has future plans for sending up television-bearing satellites—one weighing 300 pounds, another 700 pounds. If these seem big, consider the mighty dreams of Air Force planners—space platforms fitted like remote control laboratories. One would orbit at 22,400 miles, traveling as fast as earth spins. Thus it would remain above a fixed point on earth.



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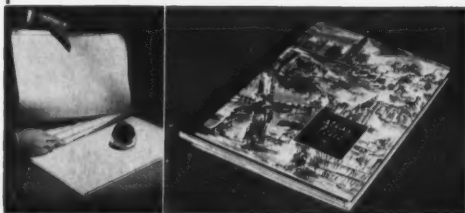
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